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REPORT

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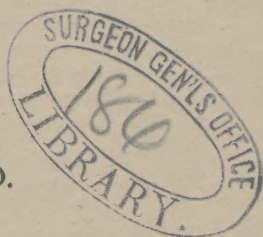
ON

ACONITIA IN TRIGEMINAL
NEURALGIA.

BY



E. C. SEGUIN, M. D.



[REPRINTED FROM THE NEW YORK MEDICAL JOURNAL, DEC., 1878.]

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1878.

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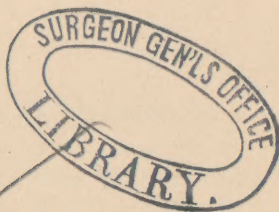
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REPORT ON ACONITIA IN TRIGEMINAL NEURALGIA.

THE Annual Meeting was held October 11, 1878, Dr. J. R. Leaming, President, in the Chair.

The election of officers resulted in the choice of the following: President, Dr. J. R. Leaming; Vice-Presidents, Dr. E. R. Squibb, Dr. J. C. Peters; Recording Secretary, Dr. A. H. Smith; Corresponding Secretary, Dr. E. C. Seguin; Councilors, Dr. R. F. Weir, Dr. A. Jacobi.

The Committee on Neurotics through its Chairman, Dr. E. C. Seguin, presented the following report:

GENTLEMEN: I have the honor to submit the following brief preliminary report on the efficacy of the aconitia of Duquesnel in trigeminal neuralgia.

This matter was made a subject of study by the Committee on Neurotics early in this year, chiefly because of the wide circulation of Prof. Gubler's statement that aconitia was almost infallible in trigeminal neuralgia. His original article appeared in the *Gazette Hebdomadaire* for February 9, 1877; and good abstracts were published in the *American Journal of the Medical Sciences* for April, and in the *Practitioner* (of London) for August, 1877. In his *Leçons de Thérapeutique*, Paris, 1877, Prof. Gubler has already stated his belief that aconitia was destined to be a very valuable remedy.

It may be interesting to recall the fact that, writing in 1874, Dr. H. C. Wood, of Philadelphia, in his *Treatise on Therapeutics*, had said that aconitia should never be exhibited internally. Drs. August and Theodore

Huseman, in their admirable work entitled *Die Pflanzenstoffe* (Berlin, 1871), gave a full account of the preparation and the chemical and physiological properties of aconitia. They do not mention Duquesnel's preparation, though it was made in 1864.

Aconitia was extracted from *aconitum napellus* by Geiger and Hesse in 1838. This aconitia was amorphous, and probably impure, as are also the preparations now furnished by druggists under the names of Merck's, Hottot's, and Morson's aconitia. Of these the last is considered the purest and best.

Duquesnel's aconitia in crystals, although discovered in 1864, has been in use, apparently, only for the last seven years—since the experimental researches of Gréhaul and Duquesnel in 1871. The only sample of Duquesnel's preparation in this city to my knowledge is that held by Dr. Neergaard, the distinguished pharmacist. With the chemistry and pharmacy of aconitia we have little or nothing to do, but an epitome of its physiological effects may not be out of place.

From Husemann's, Wood's, and Gubler's accounts the following may be stated with reference to the effects of this powerful alkaloid upon the animal organism.

It paralyzes the sensory nervous system at its peripheral extremities, and (probably) at its perceptive centres.

It paralyzes the heart directly, and by way of the vagus nerve. The pulse-rate is reduced. It lowers the arterial tension. It is doubtful if it affects the motor-nervous system directly. The subjective sensations of a patient who is fully under the influence of aconite or aconitia are: Numbness and tingling of the skin and mucous membranes, especially in the hands and tongue, a sense of chilliness and faintness, and indefinable nervousness.

The doses of aconitia vary very much, according to the preparation used, and according to the idiosyncrasies of patients. In general terms the initial dose of all three kinds—Morson's, Hottot's, and Duquesnel's—may be 0.0005 gramme (about $\frac{1}{1400}$ grain), given twice or thrice a day. Prof. Gubler states that the dose of amorphous aconitia may be gradually raised to 0.005 gramme (about $\frac{1}{8}$ grain). He states that Duquesnel's crystallized aconitia is much stronger, and that we must be more careful in dosing it.

In my own practice I have used great caution in prescribing Duquesnel's aconitia. My formula (first used last winter) is as follows:

R. Aconitiæ (Duquesnel's),	gr. $\frac{1}{10}$.
Glycerinæ, alcohol,	āā 3i.
Aq. menthæ pip.,	ad $\frac{3}{4}$ ii.
M. One teaspoonful = about $\frac{1}{140}$ grain.	

S. A teaspoonful two or three times a day on an empty stomach.

In some cases I have used $\frac{1}{8}$ grain, or even $\frac{1}{6}$ grain, of aconitia in the same formula. In this combination the solvent is the alcohol. The effects

of various doses of aconitia upon our patients will be stated in the remarks which follow the relation of the following cases observed by your committee :

CASE I. Observed by Dr. T. A. McBride.—A male, aged twenty-eight years, seen at the New York Hospital in March, 1878. Complains of right supra-orbital neuralgia, which has lasted three months. The pain was constant at first, but latterly it has been paroxysmal and very severe. In the past week paresis of the right third nerve has supervened; patient has ptosis, dilatation of pupil, and external strabismus. On March 3d is ordered $\frac{1}{100}$ grain Duquesnel's aconitia in solution three times a day. Contrary to positive directions, the man did not report to Dr. McBride for four days, and then stated that he had been almost entirely relieved of pain; he had taken the medicine as directed until the evening of April 1st, when he stopped because of relief, and of tingling in tongue and ends of fingers. No change in paresis of motor oculi. Ordered sulphate of strychnia $\frac{1}{32}$ grain t. i. d. The patient came regularly to the hospital for two weeks, and during that period there was no recurrence of pain.

CASE II.—Male; seen at the Manhattan Hospital by Dr. Seguin. An extreme case of epileptiform-trigeminal neuralgia, of two or three years' standing. In 1877 had derived great relief from Thompson's solution of phosphorus in full doses. Chief seat of pain is in supra-orbital branches of trigeminus, but all of its filaments in the left face sympathize in the attack. Was given $\frac{1}{100}$ grain of Duquesnel's aconitia twice a day for several days, with effect of provoking severe tingling, but without relief to pain or reduction in frequency of seizures. Patient not traced.

CASE III.—Male, aged about thirty-five years. Seen at clinic for diseases of the nervous system, College of Physicians and Surgeons, February, 1877. Old neuralgia of right infra-orbital nerves; epileptiform in type. Aconitia in doses of $\frac{1}{100}$ grain two or three times a day gave only slight relief; not enough to encourage continued treatment. Patient not traced.

CASE IV.—The reporter himself, in March, 1878, while weak from a combination of causes, had trigeminal neuralgia, involving all branches of the nerve on the left side, lasting six days. After failure of Thompson's solution of phosphorus, I tried aconitia, and took only $\frac{1}{200}$ grain. Two doses were taken, with severe physiological effects. I felt much tingling in the fingers, legs, and tongue, had rigors, and was cold and faint. The only good effect was very slight and transient relief from severe pain. The attack was brought to a close by the extraction of a bad tooth in the upper jaw of the affected side.

CASE V. Reported by Dr. N. B. Emerson at a meeting of the committee, held April 27, 1878.—J. D., aged thirty-two years, printer, presented himself February 15, 1878, suffering with attacks of violent pain in the first and second divisions of the right trigeminus, accompanied by clonic spasm of the facial muscles attached to the angle of the mouth on the same side. The pain was lightning-like in the suddenness of its onset, and was of the

most acute form, causing him at the time of the attack to writhe with agony, and press his hands against the painful cheek. The affected side of the face was extremely sensitive. The paroxysms were very frequent. He had been similarly affected eight months before, and successfully treated by me with phosphorus and cod-liver oil. Present attack has not lasted long. No syphilis. There were several decayed teeth in the jaw, but they were not sensitive, and, in my opinion, were not likely to be the cause of the affection. Quinine, phosphorus and cod-liver oil, and morphine, were unsuccessfully used. I then decided to use aconitiæ, after Gubler's plan, and ordered :

R. Aconitiæ cryst.,	gr. $\frac{1}{8}$.
Alcohol,	q. s.
Aquæ, q. s.	ad $\frac{3}{4}$ ij.
M.	

The first preparation was used two days without effect. I then directed the patient to have the prescription filled by Mr. Neergaard. At once one ninety-sixth grain produced entire relief of pain, followed by numbness of the mouth, tongue, and face, with peculiar symptoms in the periphery. On the recurrence of pain the following day, one sixty-fourth grain was taken with less physiological effect, and less relief. On the third day, two doses of one sixty-fourth grain each were taken night and morning, the terrible pain being relieved only after the second dose. Finally, after a dose of one forty-eighth grain, the pain remained entirely absent for eight days, and then returned with severity.

CASE VI. Observed by Dr. Seguin at the College of Physicians and Surgeons.—Mrs. A. D., aged fifty-seven; was first seen at clinic for diseases of the nervous system in the autumn of 1874. She gave the following history: In 1870 had trouble with the teeth in the right lower jaw, "caught cold in the gums," and present pain began. It occurred in paroxysms of sharp, severe pains in the right lower jaw, right half of tongue, and right half of lower lip. She suffered with no intermission up to the time when Dr. D. M. Stimson sent her to the college. The medicinal treatment which I then advised had no more effect on the neuralgia than other modes which had been tried, including extraction of the teeth.

In the succeeding summer, 1875, Mrs. D. again came to see me, representing herself as under no physician's care. I accordingly took charge of her, and excised at least one-quarter of an inch of her inframaxillary nerve, by the intra-buccal method, also known as Lizar's. This was followed by absolute cessation of all pain in lip, tongue, and jaw, and by anæsthesia of the right half of the lower lip.

In a few weeks, patient thinks three or four, some return of sensibility occurred in the anæsthetic district, and has increased until now even delicate tests reveal no anæsthesia. No pain recurred until the early spring of 1877, a period of twenty months. In April, 1877, patient's husband died, and she sat a long time near the ice-box in which his body was pre-

served. Immediately had a return of neuralgic pain in the same regions, viz., tongue, gum, and lower lip of right side. The pain was again sharp and paroxysmal. She suffered greatly until late in the autumn of 1877, when spontaneous relief took place, and she had pain only at intervals during the whole winter. The only medicine which she took during this time was cod-liver oil. She had no powerful drugs. In the spring and early summer of this year she had as frequent and as severe attacks of pain as at any time; many paroxysms each day, attacks epileptiform in suddenness of appearance and in severity. She presented herself at the clinic for diseases of the nervous system for the third time, on July 13, 1878, and the following notes from the clinic case-book embrace her history since that date:

July 15th.—The pain begins in the gum of the right lower jaw, then darts into the right half of tongue along its whole length, especially in its anterior portion; it also affects the right half of the lower lip. She has no pain in the upper jaw or in the distribution of first branch of trigeminus, but it should be stated that she has a good deal of pain, also neuralgic in character, in the right side of the head behind the ear, the right side of the neck, and right shoulder. From almost the commencement of her illness, more or less of this pain has existed, varying greatly at times, but not annoying so much by far as the maxillary neuralgia. The paroxysms of pain in the jaw and tongue came on every few minutes. Once in a while, the patient adds, when the pain is greatest in the above-described region, a little of it shows itself in the gum of the right upper jaw. Is ordered a tonic mixture.

July 20th.—Is better, generally, than last week. Ordered extract gelsemini fld., gtt. v, t. i. d., the dose to be increased by one drop each day.

July 27th.—Pain relieved by the gelseminum, gtt. vij of which produced queer sensations and double vision. In the last few days has taken only gtt. vi, t. i. d. Ordered gtt. v twice a day and gtt. x at bedtime.

August 3d.—No marked benefit from above treatment, although much distress was produced by the doses taken. Ordered $\frac{1}{160}$ grain of Duquesnel's aconitia in solution t. i. d.

August 10th.—On the 7th reported at my office, and as the above doses had produced no effect I directed her to take $\frac{1}{160}$ grain t. i. d. on an empty stomach. To-day (three days after beginning the larger doses) she is free from neuralgic pain, though some soreness of the parts remains. After each dose of $\frac{1}{160}$ grain had some tingling in extremities and face. Treatment to be continued.

August 31st.—Has had no paroxysm of pain since beginning the $\frac{1}{160}$ grain dose. Has only noticed an occasional soreness in the tongue, provoked especially by acids. Can eat with comfort, whereas three weeks ago attempts at mastication caused agony. States that effects of one dose of aconitia consist in tingling in the whole body, most marked in the toes and fingers, and in peculiar chilly sensations.

The pain in the neck and shoulders is not wholly relieved. Complains of much sweating at night. To take for two or three days one ten-grain dose of sulphate of quinia at bedtime. The aconitia to be omitted, and Fowler's solution to be taken instead, in doses of gtt. iij after meals, gradually increased.

September 14th.—Has remained perfectly free from facial neuralgia, and has had only moderate pain in side of neck, right shoulder, and upper arm. Has taken gtt. x of Fowler's solution without unpleasant effects; sweating arrested. Ordered to cease taking arsenic, and to use 3j of Thompson's solution of phosphorus ($= \frac{1}{10}$ grain of phosphorus) night and morning.

September 21st.—Had slight return of pain in right lower jaw and tongue on September 18 and 19, arrested by a few doses of aconitia. Today is perfectly well, except that right side of neck and arm is painful.

October 11th.—Has had no return of neuralgia since last note, and neck has not been so painful. States that she has more or less pain in the whole right side, from behind the ear to arms and down lower extremity to heel at times. With exception of slight neuralgic pains on September 18 and 19, has had no recurrence of inferior maxillary or lingual neuralgia since August 7th, a period of sixty-five days.

I append a case of another form of pain, viz., the severest fulgurating pains of sclerosis of the lateral columns, in illustration of the toleration of large doses of aconitia.

Case VII.—Mr. B.—, 57 years of age, has suffered from typical fulgurating pains in the lower extremities for twenty-seven years. He has as yet no trace of ataxia, and the only other symptom of spinal disease present is mydriasis of the right eye.

One of the favorite seats of these pains has been the internal aspect of the right leg, and in the last six weeks Mr. B.— has had innumerable paroxysms of cutting, tearing, and grinding pain in this region, sometimes causing extreme agony. Wishing to try aconitia for the relief of these pains, I gave him at first $\frac{1}{100}$ grain three times a day, and, not obtaining any relief or any physiological effects, gradually increased the dose to such a point that in forty-eight hours, ending October 4th, he consumed $\frac{1}{6}$ grain, without relief to pain, and with no physiological effect, except a transient and doubtful tingling in the finger-tips. I did not care to push the remedy farther. I should add that the prescription was filled at Neergaard's, and that I took pains to make inquiries as to possible errors in its preparation.

From the above cases the following conclusions may be justly drawn, I think:

1. The susceptibility of individuals to Duquesnel's aconitia varies enormously; one individual in the series having been severely affected by $\frac{1}{200}$ grain, while another tolerated with no special symptoms $\frac{1}{8}$ every three hours. On the average, distinct physiological and therapeutical effects were obtained by giving $\frac{1}{100}$ grain three times a day.

2. Out of six cases of severe trigeminal neuralgia, one, probably a reflex neuralgia from a decayed tooth, was not at all benefited.

Three cases, epileptiform in form, were slightly or only temporarily relieved. Two cases were cured. One of these had existed for seven years, with an interruption of twenty months, procured by resection of the affected nerve.

It would thus appear that, while we cannot indorse Prof. Gubler's statement that Duquesnel's aconitia never fails, we must recognize in it one of the most powerful and best agents for relieving and curing trigeminal neuralgia.

3. We do not as yet know the forms of trigeminal neuralgia which can be most influenced by aconitia. The three following cases have been reported to the committee since the meeting of the society at which this report was read.

CASE VIII. Observed by Dr. O. B. Douglas.—Mrs. C. H. M., aged nineteen, born in New York; married; was, October 19th, attacked with severe neuralgic pain in left eye—extending to submaxillary and bregmatic regions—which continued increasing in severity for three days and nights, being much worse at night, till she could only walk the floor and cry from the pain. On the fourth day I saw her, and ordered, commencing at 10 A. M., drop-doses of tincture of aconite root, beginning with four doses the first hour, two the second, and one each subsequent hour till relieved or physiological effects produced. The pain subsided, and she slept well the following night till 2 A. M., when, with slight return of the pain, she awoke, took two doses, and slept till morning, and has had no return of the trouble to this date (Oct. 25th).

Last winter she suffered two weeks from a similar attack, and has been subject to neuralgic pains at other times, usually a result of exposure to cold. In all fourteen doses were taken, but no physiological effects of the drug were observable.

CASE IX. Observed by Dr. A. H. Smith.—Mrs. R., aged forty-four years; married; seen October 13th. Had been suffering with severe pain in the face for four weeks, pain beginning in the right side, then passing to the left temporal and frontal region, and also affecting the left arm. It was aggravated to such an extent by the recumbent posture that the patient was unable to lie down. The night of the 12th was passed in extreme pain. Ordered the $\frac{1}{140}$ of a grain of Duquesnel's aconitia to be taken every four hours. Two doses were taken on the 13th with a slight degree of relief. On the 14th ordered the medicine to be taken every three hours. There was a decided abatement of the pain. At seven o'clock in the evening the patient experienced a numb and tingling sensation in the lips and tongue, and more or less over the whole right side, and especially in the fingers of the right hand. *It was not felt at all in the parts affected by the neuralgia.* The sensation was so decided that the patient, although forewarned, was considerably alarmed.

The night of the 14th was passed very comfortably, as was also the following day. During the evening of the 15th, however, the pain returned with great severity, but in the right instead of the left side. The

medicine had been taken every three hours and a half; directed it to be taken at intervals of three hours. On the 16th there were again decided numbness and tingling, affecting this time chiefly the *left* side, the pain being chiefly in the right. The pain was greatly mitigated during the day, but returned every evening between seven and eight o'clock, lasting three to four hours. The 19th and 20th, however, passed by without a paroxysm. After that there was a recurrence every alternate day at about 5 P. M., lasting four hours. On the 21st quinine was ordered; the aconitia continued. Did not see her again until to-day (26th). Quinine had produced nausea, and had not been efficiently taken. Paroxysms have continued regularly and with unabated severity. Physiological effects of aconitia limited to tingling in tongue and lips. During one day the dose was repeated every two hours.

CASE X. Observed by Dr. Seguin.—Male, aged thirty-nine. Epileptiform neuralgia on right side, involving all branches except lingual, for ten years. Suffering atrocious; many paroxysms a day. The case is under treatment, and is not ready for report, but I may say that Duquesnel's aconitia, given in doses of $\frac{1}{16}$ grain three and four times a day, has produced physiological effects and diminished the severity of the disease. In the last week patient has had only one or two severe paroxysms a day, and few slight pains. The relief is so great that patient uses extravagant expressions of gratitude, "is in heaven," etc. This is the first treatment which has relieved him. At this date (October 27th) he is still under treatment, taking $\frac{1}{16}$ grain three times a day; iodide of potassium (no syphilis), and dialyzed iron.

These cases do not alter, but only confirm the committee's conclusions, as expressed *supra*.

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